

8th March, 2010

# WORLDWIDE RIGHTS TO MST™ SOLAR ENERGY TECHNOLOGY SECURED

#### **HIGHLIGHTS**

- K2 Energy has secured the exclusive worldwide rights for solar energy technology from a leading US silicon technology company.
- Significant gains in solar panel photovoltaic cell efficiency possible in stage one, with further efficiency gains expected with further R&D.

K2 Energy Limited ("K2") is pleased to announce that it has secured the exclusive worldwide rights to the Mears Silicon Technology (MST™) intellectual property for all solar energy applications from Mears Technologies Inc. ("MTI"). K2 will fund further research and development, with the aim of a side by side test of MST improved solar photovoltaic cells within 12-18 months.

#### **BACKGROUND**

Mears Technologies Inc. is a materials research business formed in Boston in 2001 by Dr Robert Mears, recognized worldwide as one of the world's leading experts in photonics – the synthesis of electronics and optical communication.

Dr Robert Mears in the 1980's addressed the challenge of increasing the bandwidth and speed of data transmission on fibre optic cables in the telecommunications industry by inventing an optical amplifier, known as the Erbium Doped Amplifier (EDFA). EDFA technology increased usable capacity of optical fibre by more than a 1000 times. It was and remains a key enabling technology of the broadband internet.

MTI is a private company that specialises in the development of engineered silicon materials to enable breakthrough technologies, with major applications for improved performance in semiconductor (silicon) chips, solar cells and magnetic memory.

MTI has a portfolio of 80 granted patents and 200 patents pending.



Over the past 8 years MTI has developed Mears Silicon Technology (MST™), which has been demonstrated to generate significant performance enhancement and power reduction in silicon CMOS technology. Revenue will be generated by licensing the technology, materials and related processes to semiconductor manufacturers and their suppliers. In addition there are long term strategies to provide material engineering solutions to other industries.

K2 has made an investment of USD1 million in MTI by way of a convertible note.

### **MEARS SOLAR**

The Mears solar technology has derived directly from the MST™ research. K2 has agreed to fund research and development by Mears Technologies Inc, with the goal of commercialising the Mears improved solar cells. K2 has been granted an exclusive worldwide licence to commercially develop and exploit the solar applications of the MST™ technology. MTI will be entitled to 50% of the earnings from the commercialisation of the solar technology.

Solar cells or photovoltaics (PVs) are an established renewable energy source, with PV cell production increasing by 48% each year since 2002, making it one of the world's fastest growing technologies. The Mears MST™ technology potentially addresses one of the major limiting factors for PV technology and solar power generation being the efficiency limits of silicon PV cells. MTI believes that a key efficiency parameter can be lifted significantly using MST™ technology and furthermore that the amount of silicon required can be significantly reduced over time, potentially making PV cells both significantly more efficient and much less expensive.

The MST™ technology involves the production of an altered or "nano-doped" layer of silicon that can be inserted into the manufacture of silicon solar PV wafers. The process lends itself to application in existing silicon wafer manufacturing processes.

K2 Energy intends to commercialise each generation of MST™ to large scale solar panel manufacturers.

## Oklahoma oil and gas interests

Trey Resources Inc. the newly appointed operator of the company's 100% owned wells in the Bad Creek project is conducting a full review and assessment of the existing wells with a view to restoring production on as many wells as possible. Trey and K2 Energy are reviewing all geological and engineering data for the project with a view to developing and implementing a revised exploration and development plan for the Bad Creek project. Trey will be officially appointed Operator for all 31 wells upon completion of the transfer process of Metro Energy's working interests to GTK Resources LLC with the Oklahoma Corporation. K2 Energy is seeking to resolve its dispute with Metro Energy.